



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,298	04/19/2004	Ho-dong Kim	1349.1370	1311

21171 7590 06/27/2006

STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

KOHNER, MATTHEW J

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/826,298	Applicant(s) KIM, HO-DONG	
	Examiner Matthew J. Kohner	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/19/04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/19/04; 6/16/05; 1/26/06; 6/8/06</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claim 22 recites the distance between the pick-up roller and the guide plate is constant during a positional change of the pick up roller. However, if the pick up roller is pivotable (as show in figure 3) and therefore makes an arc shaped movement, then only a curved guide plate, and not one with two contact angles, will ensure distance remains constant. Therefore, the claim is unclear.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 13, 14, 16 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Application 2000-53269 to Kenichiro (*hereinafter*

“Kenichiro”) in view of US Patent No. 5,586,757 to Nakamatsu et al. (*hereinafter* “Nakamatsu”).

Kenichiro discloses a cassette (301) for a printing apparatus including a pick-up lever (304) having a pick-up roller (302) at one end thereof to be movable in the cassette, wherein the cassette comprises:

- a cassette body to load printing media therein to be picked up by the pick-up roller;
- a printing medium arranging guide member (301-3) installed in the cassette body and to arrange trailing edges of the printing media in a predetermined form; and
- a guide plate (301-2) provided in a side of the cassette body to be opposite to the printing medium arranging guide member to provide a predetermined frictional resistance for a leading edge of a printing medium to be picked up by the pick-up roller, and having a guide surface formed in a predetermined shape, wherein a constant distance between the guide plate and the pick-up roller is maintained along a moving trace of the pick-up lever.

Kenichiro does not specifically disclose the guide member is movable in the cassette body. However, such guide members are well known in the art. Nakamatsu discloses a movable guide member (22) for the trailing edge of the sheets. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kenichiro to include a movable trailing edge guide member, as taught by Nakamatsu, since the movable trailing edge guide member would keep the stack pressed in contact with the front separation guide and therefore aid in the separation process.

In regard to claim 2, Kenichiro discloses the guide surface comprises a curved surface having a predetermined curvature (see Fig. 1).

In regard to claim 3, Kenichiro discloses a center of the predetermined curvature of the guide surface corresponds to a pivot center of the pick-up lever (see Fig. 1).

In regard to claims 4 and 5, Kenichiro discloses the printing medium arranging guide member comprises a support surface having a curved surface corresponding to the curved surface of the guide surface (see Fig. 1).

In regard to claim 12, Kenichiro discloses the cassette body further comprises an engaging surface (back half of 301-2) to support the guide plate (front of 301-2), wherein the engaging surface is formed of a shape corresponding to a shape of the guide plate.

In regard to claim 13, Kenichiro discloses the printing medium arranging guide member arranges the trailing edges of the printing media to correspond to a shape of the guide plate (see Fig. 1).

In regard to claim 14, Kenichiro discloses wherein the predetermined curvature of the guide surface is larger than a pivot radius of the pickup lever about a pivot axle (see Fig. 1).

In regard to claim 16, Kenichiro discloses a lower end of the guide plate is fixed to a bottom of the cassette body and an upper end of the guide plate is fixed to an upper end of the cassette body (see Fig. 1).

In regard to claim 24, the guide member and guide plate are of non-linear shape (see Fig. 1).

Art Unit: 3653

Claims 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenichiro in view of US Patent No. 4,383,748 to Fergg (*hereinafter* "Fergg").

In regard to claim 15 and 26, Kenichiro does not disclose the guide plate is formed of a metallic material. However, it is well known in the art that cassettes can be made of either plastic or metallic material. Fergg discloses a cassette which can be made of plastic or metallic material (col. 3, lines 23-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the cassette of Kenichiro out of a metallic material and therefore the guide plate would also be formed of a metallic material.

Claim 25 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenichiro in view of US Patent No. 6,158,733 to Muraki (*hereinafter* "Muraki").

In regard to claim 25, Kenichiro does not disclose a friction pad installed on the guide plate to provide the predetermined frictional resistance when the leading edges of the printing media contact with the friction pad. However, it is well known in that art to add a friction pad to the front wall of a cassette to aid in separation of the sheets. Muraki discloses separation strips (27) on the front wall. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kenichiro to include a friction pad, as taught by Muraki, since it would aid in the separation of the sheets.

In regard to claim 27, see Muraki col. 4, lines 1-2.

Claims 6, 7, 8, 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application 2001-322730 to Miyoji (*hereinafter* "Miyoji") in view of Nakamatsu.

In regard to claim 6, Miyoji discloses a cassette (3) for a printing apparatus having a pickup roller (1), the cassette comprising:

- a cassette body to load printing media therein to be picked up by the pick-up roller;
- a guide plate provided in a side of the cassette body to provide a predetermined frictional resistance for leading edges of printing media to be picked up by the pick-up roller and comprising a guide surface having at least two contact angles (4 and 5) in relation to the horizontal direction of the printing media.

Miyoji does not specifically disclose a guide member installed to be movable in the cassette body and to arrange trailing edges of the printing media. However, such guide members are well known in the art. Nakamatsu discloses a guide member (22) for the trailing edge of the sheets. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Miyoji to include a trailing edge guide member, as taught by Nakamatsu, since the trailing edge guide member would keep the stack pressed in contact with the front separation guide and therefore aid in the separation process.

In regard to claim 7, Miyoji discloses the guide surface comprises:

- a first slope (5) which forms a first angle with respect to the leading edges of the printing media loaded in the cassette body and contacting with the first slope, and

- a second slope (4) interconnecting the first slope and a bottom surface of the cassette body, wherein the second slope forms a second angle with respect to the leading edges of the printing media loaded in the cassette body and coming into contacting with the second slope.

In regard to claim 8, Miyoji discloses the first slope comprises a greater inclination than the second slope (see Fig. 1; see also abstract).

In regard to claim 9, Miyoji discloses a boundary between the first slope and the second slope is positioned at a height corresponding to approximately a half of a printing medium loading capacity of the cassette body (see Fig. 1).

In regard to claim 19, see Fig. 1.

In regard to claim 21, see Fig. 1.

Claims 10-11, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoji in view of Nakamatsu and further in view in view of Muraki.

In regard to claims 10 and 11, Miyoji does not disclose a friction pad installed on one of the first and second slopes to provide the predetermined frictional resistance when the leading edges of the printing media contact with the friction pad. However, it is well known in that art to add a friction pad to the front wall of a cassette to aid in separation of the sheets. Muraki discloses separation strips (27) on the front wall. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Miyoji to include a friction pad, as taught by Muraki, since it would aid in the separation of the sheets.

In regard to claim 23, see Muraki col. 4, lines 1-2.



Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoji in view of Nakamatsu and further in view of Kenichiro.

In regard to claims 17 and 18, Miyoji in view of Nakamatsu does not disclose the guide member comprises a printing medium support surface having a shape complementary to a shape of the guide surface. However, it is known in the art that the rear guide member should be able to press the stack so the sheets are aligned against the front surface regardless of shape (see Nakamatsu, Fig. 4). Further, it is known in the art that if the shape of the front surface is not linear, the rear surface should match the shape so that the sheets are aligned against the front surface (see Kenichiro, Fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the rear guide member surface of Nakamatsu to be complimentary to the front guide surface, as taught by Kenichiro, since it would ensure proper alignment of the sheets against the front guide surface.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoji in view of Nakamatsu and further in view of Fergg.

In regard to claim 15, Miyoji does not disclose the guide plate is formed of a metallic material. However, it is well known in the art that cassettes can be made of either plastic or metallic material. Fergg discloses a cassette which can be made of plastic or metallic material (col. 3, lines 23-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the cassette of

Art Unit: 3653

Miyoji out of a metallic material and therefore the guide plate would also be formed of a metallic material.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kohner whose telephone number is 571-272-6939. The examiner can normally be reached on Mon-Fri 9-5:30.

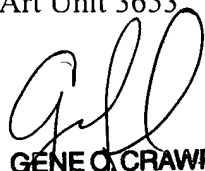
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mjk

Matthew J. Kohner  
Examiner  
Art Unit 3653

  
**GENE O. CRAWFORD**  
**SUPERVISORY PATENT EXAMINER**